

STORYTELLING THROUGH DESIGN:
APPLIED DESIGN THINKING IN A NARRATIVE CONSTRUCT
A CREATIVE PROJECT
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Storytelling Through Design

In Brown (2009) the concept of design thinking is introduced as a unique means to reach solutions by not simply focusing on a problem which requires a solution, but rather how understanding the true length and breadth of issues, known or unknown, can combine to create the problem, and then applying a method of approach to find a suitable solution, which better answers the underlying cause(s) of the initial problem. However, this line of thinking is not only meant to be applied to its original orientation of business, but can be applied to an extraordinary number of possible fields, as determined in Conklin, Basadur, & VanPatter (2007). One such field is storytelling, but more specifically in this regard, how can the design approach be applied successfully to the field of digital storytelling?

With the rise of new, progressively more powerful forms of media, and the ever-growing popularity with their inception to multiple fields, it becomes increasingly more possible for new innovative forms of storytelling to emerge as technology advances. In order to observe the potential of these new possibilities using the design approach to better understand the process, it was necessary to create an environment where the application of design thinking could be practical in order to monitor and understand the use(s) of emerging narrative aiding technologies. The environment would require not only a physical space for players to interact with one another, but as mentioned in the work of Stewart (2010, March 13), digital storytelling refers to a parallel use of technological platforms. This meant incorporating alternative forms of content such as online websites and digital information, to not only enhance existing elements, but also to produce their own unique content, which combine to construct an innovative, immersive

experience.

Theoretically, we can view storytelling as a complex problem and by utilizing design thinking methods, it may be possible to reach new understandings and possible solutions with a goal to create new forms of storytelling. Using specific ideas introduced in some of the works, such as the “project room” approach in Brown (2009); the concept of the experience architects from Kelly, & Littman (2005); as well as a general theory of approach in determining how we can view the process of storytelling less linearly, but rather as a fractal process; the outcome is a new understanding of storytelling with an infinite number of possible forms. In order to understand how, it is important to create an environment using the understanding of design thinking to monitor how viable the theory is.

Black Ops is a game based on players interacting with one another to drive the central theme of the game's narrative forward. The players were divided into factions (based on the forces created for the game's fictional background story), which combat one another for supremacy. Players use Nerf weapons to represent firearms, knives, and other various types of weapons used in real-world engagements and espionage. These allow players to immerse themselves in an environment where combat can occur, without causing any real harm to one another. The players were given access to a website and a forum which allowed them to interact with not only other players, but with key features of the game. Features of the website include a market where players can spend currency (credits), which they receive for completing objectives, on items for use in future engagements. These items ranged from firearms to information warfare components. Other features of the website were a list of players, storyline background,

or “fluff,” and a description of the game itself. The website also includes a link to the forum, where each player could privately speak to their faction, or within a public space. The players also have access to a private Facebook page, as well as a Skype group for more readily accessible forms of communications.

The game was designed to be hosted two times per month for “missions.” These usually lasted for about four hours, and were always hosted at night. During this time, players would follow briefings they would receive roughly three to four days prior in order to achieve their mission objectives. These objectives were broken into primary, secondary, and tertiary levels, with the former paying the most for completion, and the latter the least. These objectives were generally not fully described in the briefings, and would require player interaction. Players often had several obvious ways to complete their goals, but were informed they would be rewarded for ingenuity. Missions were generally designed to only allow for one faction to complete the primary objective, while most allowed for secondary and tertiary to be completed without regard to enemy completion. This ensured each faction would continue to gain credits, and remain competitive even if they failed to “win” overall.

The game is mediated by a staff who form the authoritative body of the game. It is their responsibility to moderate the players and enforce the rules, as well as develop the missions for the players. While they do hold authority over the player base with regards to the rules, they do not actually participate in mission other than to play non-player characters for players to interact with. This ensures that all players have equal rights to all other players, but also ensures the game does not devolve into chaos due to unmonitored actions.

Utilizing games for a larger purpose than simple entertainment is not a new field. There is a vast amount of data collected by researches discovering potential uses for games as means of education, problem solving, and incentive devices for physical betterment. Researches like Jane McGonigal have studied the use of games as an alternative approach to finding solutions to real-world issues. Some of her games include *World Without Oil*, *I Love Bees*, *Half the Sky Movement: The Game*, and *Superbetter*. These all focus on issues that exist in our world, and by using the willingness to succeed found in many gamers, the process of finding solutions in a fun and immersive way is possible.

Raph Koster, another renowned researcher in the field of using games for change speaks to systems found in the real world. These systems are how people perceive the world and societal functions around them; and by viewing this functions as games, it is possible to be immersed in a visceral game (Koster 2013). This approach is a solution based process, much like the design approach, as it involves starting with a solution, and then using it to achieve progress.

The goal of this paper is to show the possible applications the design approach can have for storytelling by examining the project, which utilized both physical and digital content to construct several individual evocative spaces. These spaces were then combined to form the whole of the game's narrative environment for the players to not only experience, but to also drive the creative process of content conception and implementation, which applies the design philosophy of “social vs. spatial” conceptualized in Brown (2009), among other theories. With this understanding, the design approach could be applied to the act of storytelling so to better understand the roles of each individual element of the process. This starts with the function of

each evocative space and to what extent the effect of each player's decisions within those spaces has upon the story's conclusion, which is reached as a result of these individual elements merging together.

The paper is broken down into four major sections. The first is a review of the existing literature on the fields of both design thinking and storytelling processes. This will give an understanding as to how the design approach was applied to the narrative construct of *Black Ops*. The second is an explanation of the method used to apply design thinking results. The third section is a review of the results and discussion as to what these conclusions state about the practicality and effectiveness of the project. The fourth and last section is a final overview of the project.

Literature Review

To better understand an environment in which the theories of design thinking could be applied to, it was necessary to create a setting in which constructing the narrative was the core from which all other elements derived. To do this, a game was created titled *Black Ops*, which utilized several elements from pre-existing game styles. Largely using rudiments from Alternative Reality Games (ARG) and Live Action Role Playing Games (LARP), these were merged to form a non-linear narrative construct, which defined the mission-based game environment (See Appendix A for more details). These experiences feature several elements common to various games across multiple platforms, such as core game mechanics like game-defining rule structures, designation of what in-game items do, the objective or goal of the

players, how interactions between players will occur, intensives or rewards for completing tasks, and so forth, while adding the LARP trait of requiring the players to enact a physical role of taking up a character's persona within this alternative reality. Once they enter the game, they are called upon to achieve a number of objectives within a given time frame. The *Urban Gaming League*, a student-run organization created specifically to run games of a similar nature, hosted *Black Ops* using the rules shown in Appendix B at Ball State University. However, it was felt that the game required more presence than the physical spaces of the university used for the game itself. A website was established and introduced to allow for the players to communicate and interact with the elements of the game world in more abstracted manners (See Appendix C).

The Construction of Storytelling

Since storytelling is at the heart of *Black Ops*, it's important to define the elements that make up a story. Greene, E. (1996) defined storytelling as the sharing of an experience. While it is not expressly easy to define storytelling, it is possible to understand some elements common to most all stories. A story requires at least one character. This gives the audience someone or something to connect to, and become emotionally invested in. Stories also require a form of plot. In order for a story to exist, there must be some action or driving force to challenge the character. A story must also have a form of time line. This allows the events to transpire in some order, and gives the story a beginning, a middle, and an end. Greene begins with that standard definition, but to understand how digital environments change this understanding, we must first discuss the idea of media effects.

Black Ops is a narrative construct that uses a trans-medial approach, meaning that the

game is told using multiple forms of media in tandem with one another. This means that while the physical space and face-to-face interactions do play a part in the game, so too do the other non-physical based interactions found in the digital environment of the game's online spaces. The players' usage of this space allows for their actions to both influence, and in turn be influenced by the space itself. Research by De Zengotita (2006) found the concept of media effecting the lives of the audience is a consistent and central pattern when tracing the application of digital media to society. The globalization of ideas allows those connected with media to both effect and be affected by others who are linked to the media, which directly connects to *Black ops* as it requires players to progress a narrative based on their interactions with not only other players, but the digital content they are exposed to within the various environments of the game. As the influence of new digital media becomes more widely used, the audience will begin not only experience information, but also to comment, critique, influence, alter, and otherwise interact with it on progressively more expansive levels with greater ease.

It is further theorized by De Zengotita (2006) that these cause and effect scenarios will increase exponentially as digital storytelling continues to increase in popularity and integration. This cause and effect relationship provides a potential for digital storytelling-based media to enact change upon the understanding and thought processes of the masses they reach. Audiences are frequently influenced by events that have transpired in the lives of characters and then regaled to others through stories (Denning, & Dennehy, 2000, 2001). These narrations form constructed spaces that are physical and/or metaphorical, which combine to reveal a vast level of influence held over the audience by the media itself. Thus using digital storytelling can utilize this

causation to create even more influence on the audience by creating a stronger understanding and utilization of the relationship between the act of storytelling and the media in which the specific narrative construct is made.

The progression of using new emerging media to enhance the narrative is a key feature of digital storytelling. By its nature, storytelling itself has constantly evolved around the medium in which it is told through. Stewart (2010) explains his theory that storytelling is divided into five distinct categories throughout the history of mankind, which he describes as “bardings.” The term “bard” refers to the ancient profession of storytellers who crafted stories across various forms of media, which evolved throughout time as the media themselves were invented. This process sections: Bard 1.0 refers to the philosophers and learned individuals in the times of ancient Greece who crafted the foundations for much of current academia and storytelling; Bard 2.0 references theater, which took the act of storytelling into a new realm of visual and immersive experiences; Bard 3.0 references the book, which speaks to the effect the printed story played in increased the ability for the storyteller to reach a much broader audience; Bard 4.0 references cinema, which while similar to theater, has a much greater impact on society based on the broader reach it possesses (similar to that of the book); and Bard 5.0 referencing digital storytelling, which speaks to the concepts of utilizing new, more immersive media, which drastically alter the act of storytelling into a less one-way form of communication, and opens the field into a diverse collection of tales created, told, and altered by a vast number of individuals. Taken together then, the idea of media effects on the audience and Bard 5.0 means that audiences will continue to hold a cause and effect relationship over the narrative process, which utilizes

emerging forms of digital media to create increasing possibilities for the audience to become involved in the storytelling process. This in effect allows for the media to affect the audience, which is spurred on by the increasing level of influence the audience now has over the media, creating a cycle of power held by both the audience and the media, forming an unparalleled form of immersive storytelling.

It is important to note that storytelling and narrative are not synonymous terms the two terms do not hold equal meaning. Storytelling is the telling of a tale, whether fictional or not. Storytelling requires the basic elements of characters, plot, beginning, middle, end, and so on; while narrative is rather the methodology in which a story is told (Denning, & Dennehy, 2000, 2001). In their work, they describe narrative elements as including several distinct features. Some of these include pacing, the relative speed or rate at which a story is told. This can be used as a fundamental characteristic dependent on the genre of the story. Another feature is the order of events in chronological or digressive patterns. The ability to seamlessly interweave time and story is not easily facilitated by all forms of narrative, and so it allows for certain types of narrative media to utilize this feature more so than others. Finally, the media used to tell the story can drastically affect the overall function of a story. A film, by the nature of its medium alone, will have a much different feel and outcome than a novel or song, which in turn will hold unique significance. This is true of all narrative forms. The specific aspects of narrative elements then allow us to understand what is required within a narrative construct. This becomes important because *Black Ops* is inherently a construct made of narrative environments.

Parsons (2008) discusses narrative environments, which unlike traditional storytelling

structure, are bound by elements that are found within narrative, specifically a chronology of events and a medium for the events to be told through. These forms of media do not need to be visual or verbal, but can be derived from the environment itself. The idea of the narrative environment as a visceral experience is central to *Black Ops* because the game is a collaboration of multiple environments. These are impossible to be fully explained and understood textually. To fully grasp the content, it must be experienced by entering each space to form the context in which it originates.

Thus, the interactive media effects experienced in a digital spaces is also moved into a visceral realm in narrative environments, which creates a collaborative narrative environment. This concept is explored by Brown (2009), who argues the increasing use of more social interactions creates “spaces of innovation,” which allow for inspiration, ideation, and implementation. Brown calls for a breakdown of the hierarchy of power within any group that forms a body of knowledge, as it could stifle the creative possibilities and/or capabilities of the group if there are some who hold more authority over others within the space.

These social elements can be fostered by the space in which the individuals are placed in, allowing for those interacting with the space to become facilitated by the exposure to the work (Brown 2009). By allowing spaces devoted to thinking about the work, these “Project Rooms” become environments where the effort, the problems, and possible solutions are all that matter, and anyone who enters the space has an equal chance to submit, discuss, and comment on innovative solutions to the topic. This approach of allowing anyone involved to simultaneously confront and collaborate on issues equally enables them to take up multiple innovative personae

(Kelly, & Littman, 2005). These spaces are designed to foster creativity and innovation within whatever issues the room is devoted to solving and can change to fit the needs of any issue introduced to the space.

Jenkins (2003) speaks of immersive spaces where people can interact with both one another and the information in the environment of video games. Calling these places “evocative spaces,” he argues the environment itself allows for new, innovative ideas to be discovered by those within it. This leads to an increase in the freedoms allowed by both the creator and the players involved, with regards to what interpretations are understood with relative ease.

The Application of Design Thinking

Originally appearing in Simon (1969), a theory was conceptualized as an alternative to understanding the design processes, which were applied to the business industry. The original concept was titled “The Rational model,” which breaks down the understanding of design. The model states that designers attempt to optimize for known constraints and objectives with plan-driven processes. This process is in turn completed in a discrete sequence of stages. The term “design thinking” was first used in Rowe (1987), where the original concept was re-introduced as being applicable to more fields such as architecture and urban planning, by introducing a systematic account of problem solving procedures. It broke down the principle into a form of thinking, which advocated utilizing a non-linear style of approaching issues across any applicable field. The principle components of this were: creating greater understanding of a projects purpose, deriving dissimilar theoretical positions to examine procedures, prescribing forms of thought, and providing procedures for solving problems. This laid the groundwork for design

thinking as being applicable to nearly any and all fields of study and/or business.

In 1991, IDEO design firm took the concept of design thinking and began applying its theories and approaches to issues from several industries, most notably of which has been marketing research and development. This differed from previous iterations of design thinking in that it allowed designers to tackle the underlying issues, which may contribute to a problem, creating a much larger issue than the problem itself (Brown, 2009). For example, Amtrak approached IDEO with a hope they could redesign the chairs used in their train cars, hoping it would attract more customers. After observing the customers' experiences, IDEO showed that it was in fact not the seat that needed redesigned, but rather the experience Amtrak provided. They described the issue at hand by noting the process of riding a train does start on the train, but in the home of the customer. This quickly led to a breakdown of the customers' journey to getting a ticket, arriving at the station, parking (if required) platform, boarding the train, the actual train ride itself, disembarking, and leaving the station. When confronted with the whole of the process, it was clear that the solution to the issue was not replacing the chair, but re-imagining the whole of the experience. This led to IDEO's famous quote "It's not the chair," which means the real issue is much larger than one problem.

This line of thinking was developed to tackle what is defined as "wicked problems." In their work, Rittel, & Webber (1973) the term describes issues, which are very complex in nature. The term "wicked" is used to represent that problems are not evil, but are difficult to solve by their nature. Problems which are not "wicked" are labeled as "tame" problems, and include issues like math equations, puzzles, etc. which have definitive solutions.

The term was later approached in Conklin, Basadur, & VanPatter (2007) where it was applied to fields beyond that of policy and planning. They found that while some of the characteristics listed by their predecessors were still accurate, some were irrelevant, redundant, or not always true when applied to alternative fields. They created their own list of characteristics, which "wicked" problems seem to share when applied to multiple fields.

These characteristics are divided into six definitions. The first is that "The problem is not understood until after the formulation of a solution." This is indicative of the design thinking approach as the process requires to break down and understand a situation before realizing what the actual problem of the matter is, rather than simply treating the known problem that is a result of cumulative factors. Second, that "Wicked problems have no stopping rule." Stopping rule in this case refers to the notion that these problems will not cease to grow on their own, and as such demand action to actively solve. Third is that "Solutions to wicked problems are not right or wrong." These issues are so complex that they require more than the black and white approach of seeing them as right or wrong, good or bad. Fourth, "Every wicked problem is essentially novel and unique." Simply put, a wicked problem will in and of itself will be different from every other problem. While these may share common ground with other issues, they will not be the same inherent issues. Fifth, "Every solution to a wicked problem is a 'one shot operation.'" In order to solve a wicked problem, you must understand the true extent of what is causing the issue, at which point a solution to the collective problem can be addressed, which must be handled in unison. The sixth and final characteristic is that "Wicked problems have no given alternative solutions." This describes that now wicked problem has a defines solution. (p. 7-8).

As these works have laid out a solid framework of understanding for both storytelling and design thinking, it is theoretically possible to merge the two. This project seeks to utilize the theory of how applying methods from the design approach can increase our understanding of storytelling by illuminating the individual elements of the process, and examining the effects each has upon the others. This in effect dissects the symbiotic relationships found in narrative properties as well as storytelling aspects. This, in an attempt to know how and where innovative new forms of media can be used to alter these processes, allows for a better understanding of how these work together forming what we perceive as stories.

Conclusion: a game was built as a direct result of these considerations to create a suitable narrative environment. This could then be used to apply *design thinking* methods to the storytelling process of that environment to examine the effects. Storytelling itself is the process of communicating the story, while narrative is the term describing the function of how the story is told. This process can theoretically be broken down into individual components via the design approach. This approach was formed originally for business, but has since been adapted to suit a number of fields, of which storytelling is one. Using design thinking methodology, the project seeks to create a better understanding of how the approach was used to break down the key components of the game, and then study the relationships between each component. This is done to create a broader understanding of how emerging media can be used to transform the field of storytelling into digital storytelling with a higher rate of implementation, innovation, and success.

Method

Primary objects of attention. In order to study the narrative environment of *Black Ops*, the game was broken down into three separate components. These were broad categories that encompassed the entirety of the game, while dividing it into manageable sections which each provided a unique aspect of the game's overall design. There were three categories: the physical environment of the game, the people involved with the game, and the digital environment of the game's website. These three collective elements of *Black Ops* served as the entirety of the experience of the game.

Described graphically design thinking approaches a problem as though it is the center of a large bubble graph, allowing the designers to view how other issues are connected to the original problem, and vicariously how those issues are then connected to other troubles. This is opposed to a more direct, linear approach, which sees the problem as the first of a series of steps. By applying this approach to each of the three categories, the game could be better studied and more wholly understood.

Component 1: the physical environment. In order to study how design thinking can be applied to storytelling, I needed to create an environment to study. Understanding how the environment can affect the whole of the storytelling process as discussed in Jenkins (2003) was one of the first steps. It was important to create an environment, which not only facilitated the mechanics of the game itself, but also allowed for an immersive story to form naturally from within the player base. The goal of the physical space was therefore twofold.

The first was to create a large-scale version of the project room atmosphere like that mentioned in Brown (2009). This concept allows us to view the game's tangible space as a huge project room, with the "problem" that is introduced to the space being the story of the game. As there is no determined conclusion set in motion from the beginning, the players are then introduced into the space to drive the problem, or in this case the story, forward towards a solution, or conclusion. Their actions held both direct and indirect consequences on the game, which in turn drove the story forward from its initial state, towards a conclusion, which could not be reached without their actions.

The second was to facilitate an environment in which aspects of evocative spaces are incorporated, as introduced in Jenkins (2003). It was important to create a space in which the players could participate with one another. However, it was also important to understand that the environment would require meaningful contributions in order to function as an evocative space. Some techniques used were to establish certain zones within the physical play area, which assisted certain players based on their location and corresponding faction. This helped give each player some sense of connection between the space and their personal goals. The actions of the players could even alter the play area by closing or opening paths throughout the area; as well as forcefully taking control of enemy territory to allow one side or the other to obtain some manner of advantage, which shifted balances throughout the game. This level of interaction within the play area allowed the players the chance to be immersed in a visceral environment, which adds to the capabilities of the players.

By treating the physical space both as a project room and an evocative space, we see a

merger of the two ideals working to allow for a space where players can interact with one another to drive the story, as well as the environment of the play area itself to alter the ebb and flow of information and interaction. The actions of the players that shift the environment also create changes in how players will be able to interact with one another, and therefore cause measurable change, which continues to influence the environment, making the effects of the player actions a cyclical process. This transforms the physical space into an “evocative project space.” This is critical to develop for the players in order for them to begin to immerse themselves successfully into the story of the game. However, it is also important to understand the magnitude of the roll that players will need to have to make this use of space successful. This is important not only because of their influence on the physical environment, but also because they themselves perpetuate the storytelling by having an intricate roll as part of the narrative construct.

Component 2: the people involved. It was unmistakable that the players themselves should be one of the central components of the project. This is largely in part due to the level of content they were expected to interact with, as well as create, for themselves. However, there is another subgroup of people involved, which is important to explain, as their influence on the game's design was extraordinarily apparent—the game's administration staff. It was evident from the beginning that this group would have a large part to play as their decisions would be the foundation for the game-relevant mechanics of *Black Ops* so that players could expect an environment that provided the spatial properties necessary for them to apply the social properties (Brown, 2009).

The staff was responsible for interpreting the actions of the players and then producing

the perimeters for the next mission. In any game, it is necessary for a neutral party to exist, with the sole purpose of creating a wholly fair and balanced system in which the players must act (Rollings & Adams (2003). Every game by their nature requires this, as it prevents bias from one side or the other from affecting the core mechanics of the game. It was also the responsibility of the staff to ensure that prop pieces for the game were in place at the correct time, and to solve any disputes between players. As they were in the field, they were also excellently placed to collect data on game mechanics, and determine what worked, and what could be improved upon.

There was also a third player faction created for the purpose of giving the staff some more direct determinant on the game. This feature was added as a way for the system to have internal checks and balances, so that if the actions of one faction dominated the other, it would be possible for the staff to have a way to aid the failing faction beyond mission design. In order to allow this feature to occur naturally within the story, the third faction was written in such a way that they were invested in keeping both primary forces as evenly matched as possible, in order to prolong the war, from which they were drawing large amounts of profit. This helped the staff moderate game balance, while leaving the storyline intact. The third faction received their orders specifically from the staff so that their actions were based on maintaining balance between the two main forces. This allowed for their actions to be not only conducive to progressing the plot in new and interesting ways, but also ensured that the game itself progressed in a fair way for every player. However, it was felt the players would also need a way to interact with this feature in some way. It was then decided that the third faction could be purchased using in-game currency, called “credits.” This allowed the players to be able to spend their earned currency to

interact with this system, which was based on their faction's current status to avoid reducing the effective level of the checks and balances. This expansion of capabilities for the players was done purposefully to understand how they would approach the ability, and could use it strategically for the game, and progressively for the narrative.

By expanding the capabilities of the players, the capacity for innovative progression is also expanded. While this can create possibilities, it can also detract from the goal if not monitored closely, as too many options can lead to detraction of progression. In Christensen (1997), the concept of "Sustaining vs. Disruptive Technologies" is discussed, as it refers to the problems caused by too many possibilities to choose from. Whether the focus is on technology or storytelling, there is a commonality that without some form of mediation, there may be too much information to sift through in order to make constructive decisions. This is why the players themselves do not design the final version of the game elements, but rather are given the freedom to conceptualize and introduce ideas to the game's staff, who then take the ideas, as well as other factors such as previous statistics, current game status, overall mission balance, and so on into consideration. This gives the game's players a balanced sense of power to have direct control, by virtue of allowing the players to decide the best course of action to take on individual tasks; as well as indirect control, by virtue of their freedom to both submit as well as create their own content that could be introduced and create quantifiable effects on other players. This gives the people involved a stable foundation to expect a reasonable understanding of what to do, while providing an environment in which players can influence distinct change based on their own actions.

Another concept taken into consideration was the idea of treating the players as designers. In Brown (2009), there is an important element of design thinking which is indispensable: understanding that the field is a fine balance of social vs. spatial aspects. A space can provide optimal settings for innovation to come about, but it cannot happen without the social element of people. Design thinking requires the human capacity to think and rethink about an issue, and create new, innovative alternate views through discourse. This is where the players again enter the equation.

In Kelly, & Littman (2005), there are several active roles which innovators can take when using design thinking, none of which are mutually exclusive. While I understand more roles are used, I found one key role as being overtly important to the process of player driven stories. The "experience architect" is tasked with designing, developing, and implementing innovative new experiences as if they were tangible products. In effect, they produce an experience the same way an architect does a building. When approaching the players, it was expected of them that that they would take what information was given to them and then expand it. While they were given objectives to aspire to reach, no directions were laid down as to how they were to go about attaining them. The players were given the freedom to approach a situation in whatever manner they wished, so long as it fit within the confines of the game rules.

An important factor in designing the rules for the game was to create an even playing field for each player. As this was the case, no player was given any power over another player inherently. This provided each participant with the freedom to contribute equally to problems. This lack of hierarchy as noted in Brown (2009) is crucial in providing a working project room

environment for the players to interact in and with. It is also important as it allows each player to hold a vested interest in his or her role. Each player takes on the persona of a character in the game. Their character will interact with elements differently than other characters for no other reason than the motive they have crafted for themselves. These unpredictable elements not only affect the game and the story, but also allow players to become emotionally connected to their role. This is a factor seen in Jordan (2002) where the individual investment is a central driving factor for innovators to continue to want to contribute. This desire is vital for the players of a game where their actions are imperative in driving the plot progression.

Component 3: the digital environment of the website. In Stewart (2010, March 13), the idea of the next form of major storytelling incorporates digital storytelling. This uses additional media to enhance, as well as create, experiences that are essential to developing the environment for the game. It not only allowed for additional possibilities for the players, but also created several unforeseen results.

The digital environment created for the game was built from two connected spaces. The first of which was the primary website. This acted as the dominant hub for digital information. Players would not only receive data necessary for their faction to use for upcoming missions, but the website also provided a centralized space for all players to actively interact with central game features. These features included purchasing upgrades on the game's black market; keeping up-to-date on the game's roster and player load-outs; as well as read additional background story information which resulted from the mission outcomes, and in some cases, specific actions. The website was produced as a functional space for the game itself to progress, but the design of the

website was based around the idea of continuing to tell the story. The aesthetic design was kept very dark, as the game was almost exclusively held at night, and was designed to have a very hi-tech interface. This was done to help the players feel as though they were actually a part of a faction, rather than looking at a basic website with no contextual narrative aesthetic elements.

The second digital space was an online forum created for the players. This allowed for interactions to continue occurring even when the game was not actively running. Players could log on and discuss what they read on the website, what happened in the field, plan for future engagements, and so forth. This space was also used by the staff to contact players in character, as well as receive suggestions and feedback from players about specific missions or mechanics, along with a space to make game-relevant announcements. This forum was designed with the idea that large amounts of narrative content would be found as players interacted with one another as they would in reality, but also provided a function for the game as it gave each faction a place that only they could see, as well as general spaces for players to give and receive information.

The players were given access to a forum where they could privately receive and discuss topics of interest with their faction members, as well as a general space. It was also the central location for in-game purchasable items for which to better themselves. These were planned purposes for the game. The players then found new potential for the space. A player initiative was taken to incorporate new ways to obtain and understand information for the game. One of the players began to look into the website and very carefully found a narrative element, which they were instructed could be influenced by their actions. Because the website itself was not

abstract like the game rules, but was in fact incorporated as part of the story, they manipulated the website using their own skills. The outcome was that the player had managed to add an additional member to their faction from another university. This individual was extremely skilled at deciphering codes, which had become a reoccurring puzzle for the players to tackle. When confronted by the staff, the player defended his actions as being plausible in the realm of the alternate reality. It was therefore decided by the staff that the added player would be allowed to remain active and the opposing faction was left to discover and handle the situation at their own discretion.

The website has proven to actively add to the game for more reasons than the intended purposes it was created for. As the above example shows, the players have already taken the freedoms allowed them on the space, as well as the prospects afforded to them by virtue of being a website, the players have demonstrated that the website itself offers yet another evocative space in which interactions can occur. So the medium of the website not only enhances that of the physical environment, but is itself one. This duality allows for expanded possibilities for the players and therefore the game.

Linking the approach to the project goals. The goal of the project was to apply design thinking to the act of storytelling within a narrative-constructed environment. As design thinking is about the breaking down and understanding of how each individual part contributes to the whole of the process, it was the natural conclusion that the narrative-based environment would be broken down into smaller, unique sub-categories as well. By designing the environment with this in mind, it was possible to apply the design approach with greater ease. Once this was done,

the process of using the approach to better comprehend what each component yielded in terms of results became more manageable. This also provided insight as to how the components themselves could be improved.

An example of this was seen during the early stages of the game. Players were given access to the website and quickly began to formulate alternative uses for it, as it provided potential uses outside of those originally conceived by the staff. Players on one faction began the process of creating a “catch all” space. This was a thread on their private forum space, which was designed by players for collecting all relevant information with regard to any topic that was added to the section. This gave the players a chance to actively take into account the vast amount of information, which had currently been located over several forms of media, from word of mouth interactions with characters in the field, emails, forum posts, decrypted cyphers, enemy information, etc. It was a way of managing the materials the players had received or gathered efficiently. The staff then took steps to ensure the feature was added to the website for not only that faction, but for all players. This new website feature was unanimously accepted by the players as a positive addition. It is important to note that the addition was a direct result of player innovation, which bettered the whole of the game.

Conclusion: the use of design thinking could be applied to the narrative environment of *Black Ops*, which was broken into three components. The three components consisted of the physical environment, the people involved with the experience, and the digital environment. Each of these components were further broken down into two sub-groups within each: the physical environment consisted of features indicative of both the project room and evocative

spaces; the people involved included the staff and players; and the digital environment which involved the website as well as the forum. By understanding these constituents, the staff and the players were capable of producing a more effective environment to both run the game, as well as progress the narrative.

Results and Discussion

After the game was closed, it was evident to me that understanding the game's features had positive effects from the design approaches taken, as well as the improved narrative construction abilities of the staff and the players. Both groups were able to take a decisive role in driving the story and players specifically were rewarded with in-game incentives for using creativity and innovation in their problem-solving techniques. The game itself felt as though the participants were crafting it more so than any one individual, including the staff and the administrator. Additionally, the game provides a unique and visceral experience as the immersion and investment of those involved exponentially increases. This investment creates the foundation for innovation to take place.

The move to digital spaces as a form of narrative construction is still emerging. There are untold possibilities with new forms of media and the increased spread of the inception into society. It is more than probable that as such, this will undoubtedly affect the way in which stories are told. The inclusion of the website and the forum space were there as part of this project to monitor how effective they would be at bettering the story, as well as providing space

for telling the story. Having reviewed the data, it is my opinion that the website and the forum were the dominant environments in which the story itself can be found. While the players did in fact drive the story, it was apparent that the majority of their actions and in-character dialog occurred within the digital spaces far more than that of the physical environment. It is possible that this is a result of the web spaces being utilized more frequently for the game than the physical environment, which was only used during mission times, which happened three times per month. It is also possible that the players preferred the digital space as it provided a means to interact with others without a need for face-to-face interactions, with which some players expressed difficulty.

I believe that this understanding of how and to what extent the digital content affected the game would only be possible by breaking down the game using the design approach. Not only did it show how the three components worked, it also provided insight as to how the three influenced each other. The dynamic of how players would need to use digital environments even within the physical space, as well as the challenges of interacting with a space almost as much as interacting with other players, allowed for a greater understanding of how the sum of the parts could be utilized as optimally as possible, by both the staff and the players. The staff could more effectively predict how certain situations would pan out, and therefore could react to situations quickly and efficiently, while players were able to use a near limitless plan of attack when it came to addressing specific situations within the game, such as objective control and strategic movements.

The usage of design thinking was effective in breaking down the *Black Ops* experience.

This success was felt both on the staff and player level as the game progressed. Because of this, the understanding of what could be reasonably expected of the game was expanded, and the storytelling process of the narrative construct was increased. This seems to denote, at least at a preliminary level, that the application of design thinking is in fact plausible for creating higher levels of understanding for storytellers, which conforms to the goal of this project.

Final Overview

Limitations of this study. The project is in no way a conclusive work. One of the major restrictions faced was the sample size. The game consisted of only thirty seven players and four staff members, all of whom attended Ball State University. Additionally, these were all members of the *Urban Gaming League*, which presented a fairly closed environment in terms of variety of the people involved. Because of this fact alone, I would say the project would need a more extensive player base before the results could be conclusive.

The design approach itself is also not without its flaws. It became apparent that some players were more invested in the game for competitive reasons over that of adding constructive narrative. While the competitiveness could in itself be positive reinforcement to the construction of the narrative, it at times became so overpowering that these individuals would eschew the story entirely for nothing more than the will and desire to win the game. It underscored the fragile nature of the game, as the environment is so dependent on the players to take active roles

in creating and driving the story; it will become poisonous and fail should they not. It also requires a delicate balance between staff moderation and player innovation, which can be incredibly hard to understand and implement. These formed considerable limitations on what could be accomplished within the project.

The game *Black Ops* was only a singular type of narrative construct. Though it consisted of several different media, it was far from all-encompassing. There are other media which would need to be studied, as the design approach can only be applicable to a single construct. This is due to the effect each component of any construct has upon the others within it. Because of this, each individual game, book, movie, theatrical performance, and so on will be unique cases, and so the use of the design approach is limited to conclusions drawn about specific pieces, rather than broad genres.

Recommendations for future studies. The single largest suggestion for future studies is that they simply continue to be done. I believe that this subject does hold great potential for anyone who seeks to better the understanding of the narrative construction process. I would say that the application of the design approach will need to be increased to several genres beyond game environments. Perhaps a study of how we can broaden the social scope of more types of storytelling, which currently are underutilized by mainstream society.

It is also possible to expand the existing study by increasing the environment developed for *Black Ops*, extending the player base from that of a single campus to something even more broad. By incorporating other universities, which are great for recruiting willing individuals to

take part in this style of event, it may be possible to gain more information to build onto what has already been gathered. This would reduce the initial work as the website, forum space, and game rules are designed for expansion into additional environments.

This type of study is not a singular piece, but rather it has become part of a much larger field of study. The Games for Change organization has committed hundreds if not thousands of hours of research into using games as a catalyst for enacting real social change. The work of Jane McGonigal, Raph Koster, Asi Burak, Michelle Byrd, and many others have laid a foundation and propelled the use of games for more than entertainment. At its core, *Black Ops* is a narrative construct. It uses the rules of a game to develop a space where players can immerse themselves in the story. By merging the ideals presented by McGonigal, gamers can reach a higher level of understanding and devotion to a task when they immerse themselves in the process like that of a game (McGonigal, 2010). *Black Ops* uses this concept to allow players to have a higher level of involvement in the storytelling process. Because of this, I believe the project is actually a part of this much larger field of study.

While I can say that the design approach was successful in bettering my understanding of each component of the narrative construct, it is only fair to also say I feel that the study is not conclusive. With that said, I also feel it is a subject that merits further study. With innovative new combinations of fields uncovered, it is important that we continually allow ourselves, with open minds, to approach the delicate question of “how” with regard to storytelling. At one point people may have thought it was impossible to communicate with someone on the other side of the planet in near-real-time. Today we only wonder what it must have been like to not have that

capability. I believe that in the future, people may look back and wonder how stories could have ever been told by just one person, or across only a single medium.

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Appendix A

Alternate Reality Game (ARG)

An alternate reality game uses real world spaces as a platform to create an interactive narrative. These often use trans-media storytelling to create a story that is subject to the actions of the participants.

Live Action Role Playing (LARP)

A live action role playing game is a form of storytelling that involves the participants taking on a character or persona. The characters then attempt to complete goals or objectives along with other characters based on the fictional setting represented by the real world environment. The final outcome of their decisions may be influenced based on the game rules as well as the actions of other player characters.

Appendix B

Black Ops Rules Set

Black Ops is a tactical combat simulator with the emphasis on combat squads working in conjunction with each other and against each other to complete the mission at hand. The game consists of multiple factions, which are all competing for victory.

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Back Story & History

Allied Federal Forces

Created through a joint venture between the western powers, the Allied Federal Forces were created in secret shortly after the end of World War II. At the time, the governments of Europe and the United States were extremely wary of their Russian allies. The A.F.F. was founded on the ideas of keeping peace through military action.

Soon after the beginning of the Cold War however, the A.F.F. were reorganized to be a stealth operatives unit. While their orders were different, the idea was the same. The squads of the A.F.F. were quickly put to use around the globe as the western powers tried to prevent the spread of communism.

Calling themselves "The Preventers" this group is run under a highly classified division of the government. Many members of the White House are not even privy to the knowledge of their existence. This is done as a way to keep the unit's identity a secret. For the past 65 years, they have helped steer the world away from chaos and turmoil. It is no doubt fact that World War III and many terrorist acts have been neutralized by nothing more than the A.F.F.

Coalition of Sovereign Nations

This organization was funded originally by a group of freelance mercenaries from multiple European countries sometime in the early part of the century. Their main objective was to establish a small country for themselves in a small coastal region about 70 miles north of the German city of Lübeck. When the German government moved in to end the movement, many of the organizations leaders had disappeared sometime during the conflict.

It was later discovered through happenstance that the missing leaders were actually kidnapped and later hired on by the German government to work as spies. They had been sent on several missions gaining detailed information about many of the world's most powerful countries. This data was then transferred to the German government in secret. However, this information was also being copied for a second, more lasting movement.

After 17 years of intelligence gathering, the members of the original movement made their move. Taking a wealth of information covering government secrets from half the world's superpowers, the movement had their ace in the hole, and are now at large.

It is unclear as to the endgame of this organization. Deemed as International Terrorists, they work primarily alone, and are often on the move. Not even many of the organization's members know the mission of the group. They fight on for the promise of a new world order, with them at the forefront.

Special Tactical Armed Response Corp. (S.T.A.R.C.)

This mercenary for hire unit is comprised of freelance agents willing to work for, or against anyone at will. These men and women are highly valued for their ability to turn the tide in sticky situations, but their only ally is the highest bidder, and this can often cause loyalties to shift.

Factions

Primary Factions

The Allied Forces and Coalition of Sovereign Nations make up the game's two primary factions at war with each other. Members of each faction are separated into pre-existing squads, using combined tactics to overcome the enemy and claim victory for themselves.

Squads will register for play as a group, and will work with other pre-registered squads to accomplish their faction specific goals. These squads must stay together, and may not split up. In the event they are separated (which may occur as a result of combat for example) the squad should work to regroup as soon as they are able. If possible, squad members returning the play should not interact with the enemy faction or mission objectives until they have rejoined their squad.

Squads may range in size from **3 to 6** strong. Members of these squads are allowed to carry a standard weapon, and a side arm. These weapons are chosen by the player, and may be modded, pending approval.

Members of the Allied Federal Forces will wear Bright Blue armbands. Members of the Coalition of Sovereign Nations will wear Bright Red armbands.

Primary Faction Squad Numbers

In the event of being below the squad minimum of 3 members during the mission (not due to a member being stunned, but out of absence), the remaining members of the squad must group with another squad for the duration of the mission. You may choose the squad you group with, similarly they have the choice to accept or decline you grouping with them, however once your squad has merged with one to form a squad above the minimum members, you cannot choose to de-merge so as to merge with a different squad later on in the same mission, save for the case of previously absent squad member joining the mission, in which case you can become a valid squad again.

Furthermore, to address a squad member being shot, thus resulting in your "active squad" having less than the squad minimum. If a squad member is removed from play via stun mechanism, and the number of active (non-stunned) members in your squad is less than the squad minimum (3), the active members can remain in the field, and may aid other squads with objectives or participate in combat, but they may not gather/retrieve, or complete objectives by themselves until their squad is complete again, or until there is another squad present to raise the active member count above 3.

These rules are not designed to punish play, but rather designed to enforce squad mentality, and hopefully limit squads "lone-wolfing" objectives by having one runner still alive. It also enhances the role play element we're looking for, whether you embrace it or not, as squad members should be more concerned with their lives than objectives. We are depending on an honor system here, as we cannot be everywhere, and often use the forums as a method for turning in objectives, so if you see someone of your faction or the opposing faction interacting with objectives with less than 3 players present, please contact a moderator. Even if it could hurt your faction, you may be rewarded for being honest.

S.T.A.R.C.s

This is a unique faction in that it has no loyalty to others, or even itself. The group is comprised of "Lone Wolves" who work for themselves. The S.T.A.R.C.'s may work together if they choose, but they're primarily seen working as single operative units allying with whoever their contract dictates, if any.

The most important aspect of this organization is that it works off of the idea of a war economy. The corporations involved are only looking at the bottom line. This means that the S.T.A.R.C.s will often hinder the progress of a faction that is dominating. They do not want the warring factions to separate, and as such will facilitate war amongst them as often as possible.

These players are always treated as single player units. They may receive contracts from players who hire them for a mission, in which case they may work with that squad that hires them or alone to complete the assigned task.

These "Mercenary" players operate differently than the unified squads of the Primary Factions, and will sometimes aid, or hinder the progress of their missions. If hired, they will act as a member of the squad which hired them, while still retaining their S.T.A.R.C. traits (including being able to work alone).

S.T.A.R.C. members are not armed to the capacity than that of the larger, more financed forces, and to represent this they may only carry 1 side arm. This weapon is chosen by the player, and may be modded, pending approval.

S.T.A.R.C.s will wear Neon Green armbands.

S.T.A.R.C. Contracts

The S.T.A.R.C.s are mercenaries first and always first.

A squad from one of the Primary Factions may purchase the alliance of one of these mercenaries for the duration of one mission, and may continue to hire them for later missions, so long as they can afford the rates! Any S.T.A.R.C. who is contracted will abide by the following rules:

When hired, a S.T.A.R.C. agent will report to the squad who has contracted them prior to the mission.

S.T.A.R.C.s are treated as being a member of the squad, and therefore faction, which has hired them. This means they can interact with objectives just like any other members of that faction.

Remember that once hired, S.T.A.R.C.s do not have to remain with the squad. This is to allow them and the hiring squad to cover more ground by being able to split up.

Items that S.T.A.R.C.s purchase which can effect other players like the *Stim Pack Kit* or *Omni-Scanner* can be utilized on other members of the faction, but the order to do so must come from the squad that hired the S.T.A.R.C. with the item.

S.T.A.R.C. agents will still receive 200 credits for being hired, regardless of actual hiring price.

Any S.T.A.R.C. who does not receive a contract prior to a mission will be subject to the **Echelon**

Protocol rule.**Echelon Protocol**

S.T.A.R.C.s will often find themselves un-hired when a mission comes up. If this happens, any and all S.T.A.R.C. agents who are not hired will form a temporary squad for the duration of the mission. While in effect, the Agents will work together to reach a single mission goal. This will be treated as a primary goal, and will often work against the faction who has the "tactical advantage" (who is winning). In the event An Echelon Squad is formed when a mission takes place in one of the Main Faction Home Territories, the Squad will most likely work against the attacking faction.

It should also be noted that S.T.A.R.C. agents who are a part of these temporary squads still hold their usual properties, and are not bound by the Squad Rules. They are still S.T.A.R.C.s after all.

S.T.A.R.C. agents will receive 120 credits each for completing their Echelon Mission goal. Some of these missions will also have a Bonus Objective which may yield increased profit. This will not yield more than 150 credits per member in total.

Missions

Missions will be the main element of *Black Ops*, and how players will interact with one another and NPCs. Each Mission will have a series of objectives which will need to be accomplished. Upon completing a mission, members of each faction will be paid in credits. The amount paid will depend directly on the level of success from the mission.

Mission Objectives

Objectives are broken down into Primary, Secondary, and Tertiary. Obviously Primary Objectives are the most important of all objectives and will have the highest single credit payout. Secondary Objectives are important side missions and will yield the medium amount of credits. Tertiary Objectives are often simple or quick goals which yield the smallest payout. However, all objectives are important in that they will help finance each member more rapidly and allow for more purchases from the Black Market.

Mission Scheduling

Missions will be scheduled for **1 Saturday night a month at 9:00 pm (2100 hours)**, and will be posted online for the players. These postings can be found under the Event Banner on the Forum, under the "Next Mission" tab in the *Black Ops General Discussion* section, and will be posted to the group's Facebook Page (*UGL Black Ops*) prior to every mission. It is important to keep up with these pages as upcoming mission details will be released to each of the Factions through these channels. Specific mission details for each faction will be released on the respective Faction Forums under *Black Ops General Discussion*.

Some missions will take place outside of the designated mission time, and will often be quick day-time missions. The outcomes of these missions may have significant effect on the game, so make sure you check for updates frequently.

Staying in contact with your faction is important as well. Each of the factions will have a designated area that only members of their faction will have access to. It is suggested that members use these as a means to stay in contact with their faction for planning and strategizing.

Zone Mechanic

In order to facilitate more stealth based missions, a larger space is required than has been previously utilized. This will help allow for more tactics to be implemented by the players and help prevent the play area of the game from feeling stale. This new mechanic will implement a mobile play area style that should provide the game with more space for the players to interact with.

Previously the only area of campus utilized was the central zone between Neely and Riverside, and East of McKinley. This was referred to as "The Kill Zone (The KZ)". The New Game will utilize Three Distinct Sections of Campus, all three of which will now be what "The Kill Zone" is referencing. Each Zone will be Defined by what they contain.

The Northern Section is "Coalition Territory." It will be comprised by the section of campus north of Neely. This section holds the Main Faction Barracks for the Coalition, and mission which take place here will favor the Coalition heavily. The Allied Forces will have a Field Barracks on the Southern Boarder of the Zone.

The Central Section is "The Neutral Zone." This is comprised entirely by the area located between Neely and Riverside, and East of McKinley. Both Factions will have a single Field Barracks on their respective boarders with the Neutral Zone.

The Southern Section is "Allied Territory." It will be comprised by the section of Campus known as "the Quad", as well as the Student Center area. This section holds the Main Faction Barracks for the Allied Forces, and missions which take place here will favor the Allied Forces heavily. The Coalition will have a Field Barracks on the Northern Boarder to the Zone.

Note: The S.T.A.R.C. agents do not have a Primary Barracks in any of the zones, but will always have a Field Barracks. Unlike the primary factions, these bases are often quick, ad-hock bunkers formed where ever possible, and will often move between missions. The agents will be informed of the location prior to each mission.

Faction Barracks

Used as a base of operations for the factions during missions, each of the three warring factions will have a designated base in the Kill Zone. These bases will serve as staging points for each faction to replenish themselves and house their equipment.

The A.F.F. and C.S.N. have a Primary Faction Barracks, which will provide a safe zone for members of that faction. These Barracks are located in each of their owning factions respective "Home Territory." It is important to note that S.T.A.R.C.s many never claim to be safe within the safe zones of either of the

main forces.

Weapons and ammunition left by members of the owning faction may not be removed by other players.

Members of the opposing primary faction should not enter the others barracks, unless they did so whilst being undetected. If discovered, they should leave immediately.

Primary Barracks

Each Primary Faction has a Primary Barracks at the start of the game, located in their home territory. This structure is indestructible, and will never move. S.T.A.R.C.s do not hold a Primary Barracks.

Field Barracks

Both of the Primary factions as well as the S.T.A.R.C.s utilize Field Barracks in the Neutral Zone, as well as when pushing into enemy territory. They work the same, though less efficiently, in all respects as a faction's Primary Barracks.

Additional Field Barracks may be purchased by the Primary factions for the Neutral Zone. Note that these may be destroyed by special equipment which is purchased through the credit system. Also Note that S.T.A.R.C.s may never purchase additional Barracks.

Getting Shot

In a game based on Nerf weaponry and melee weapons, it is obvious that the method of subduing the enemy is through combat, ranging from small to large scale, when the more operative use of stealth fails.

If a player is shot (or hit by a melee weapon), they must remove themselves from play. In order for a player to be returned to the game, they have a few options at their disposal.

The player must find a barracks belonging to their faction.

If a player is using their *Primary Faction Barracks*, they may re-enter play after **2 minutes** within the barracks.

If a player is using a *Field Barracks*, they may re-enter play after **6 minutes** within the barracks.

If a player is shot (or is hit by a melee weapon), a fellow member of their faction (or friendly S.T.A.R.C. member) may carry them to a friendly barracks for medical treatment. If this is done, the time normally needed to re-spawn will be **halved**, the player(s) may then re-enter play as normal. Please note that the player escorting must be active (aka not shot or hit by melee) and does not have to remain with the recovering player during their respawn. An Escorting player may only aid one player at a time, unless otherwise able.

Weapon Designations

*Weapons are broken down into three categories: **sidearms**, **standard weapons**, and **heavy weapons**.*

Each weapon category may be upgraded (with the exception of the heavy weapon slots which must be unlocked).

Side Arms:

These weapons are small often concealable weapons. Pistol-style guns with no attachments, melee weapons roughly 18 inches or less, or a single sock all work as side arms.

If you run a small melee weapon, it may be attached to the barrel of a standard weapons like a bayonet. This does count as being your side arm, but can offer some really unique play opportunities.

Standard Weapons:

These weapons make up the bread and butter of each forces firepower. Weapons that are considered two handed style, like the Firefly, Alpha Trooper, Recon (with the butt extension), etc. are considered standard weapons.

Any additional attachments may be added to these weapons, such as barrel extensions, butts, lights, etc.

Heavy Weapons:

These weapons are used to bring the high velocity or high rate of fire weapons to the field. Unlike the other weapons, these must be unlocked by players before they can be used. Additionally, these weapons do not have upgrade options... they are already heavy weapons. Weapons such as the Long Shot, Long Strike, Vulcan, Stamped, etc. are all considered heavy weapons.

These weapons, like the standard weapons may utilize any additional attachments. Additionally, these weapons may use any clip that fits their design, even if the clip could normally not be used by the player otherwise. Heavy Weapons should not be stifled by limited clip availability! These clips may only be used in the Heavy Weapon itself unless the owner has purchased the ability to use them otherwise."

Upgrades

Each weapon slot may be upgraded by players on a "individual" basis. The upgrades work as follows:

Side Arms: May use a standard weapon as a side arm

Standard Weapons: May carry two standard Weapons

Heavy Weapons Unlock: (No further upgrade available)

Clips

Any weapon that utilizes the common Nerf Clip system start the game using the standard 6 round clip. Even if the weapon came with other clips (like the Alpha Trooper's 18 drum or the Raider's 35 round drum). Players may purchase the ability to use these clips on an "individual" basis. The only exception to this rule is Heavy Weapons. Heavy Weapons may utilize any size clip the owner wishes.

Credits

Function

Credits function as currency in this game. Each Faction earns credits by completed missions. It is possible to gain credits without winning the mission, as there is more than just win or lose. Each mission is based on a primary, secondary, and tertiary goals for both of the main forces. The S.T.A.R.C.s generally only have primary objectives in the form of contracts, but receive a larger amount of credits per completed mission than the average member of the main forces.

Credits are used to purchase a multitude of items. Each Individual will receive the portion of the factions overall income from a mission. Each member can spend it as they see fit on themselves, and can share credits with other members of their own squad. These credits can be used to purchase things such as weapon slot upgrades and larger clips. Multiple Squads can merge funds only to purchase anything in the Black Market labeled "Faction Purchase". These will be clearly labeled in the Black Market.

The Black Market





In order to arm and supply the field agents of each faction, it is often the case that such transactions must be made "off the books." This is where the Black Market comes into play. Both of the Primary Factions as well as the S.T.A.R.C.s will be able to access the Black Market in order to utilize their credits for specific purchases. All items will be presented with a cost, a short line of flavor text, and the mechanics of how they work. Many of the items require contacting the staff to activate, only be purchasable by specific factions, and some may even be one-time uses. These will all be clearly defined in their entries.

















The Black Market will be visible to registered players as an *Announcement* in the *Black Ops* General Discussion. To make a purchase, you must PM the *Black Ops* Admin on the UGL Forum.







Appendix C





Forum Content				
Forum		Topics	Posts	Last post
	Forum Rules & Announcements Here you will find rules and announcements relating to the entire UGL forum. Please note that all items here are required reading for all forum users! Moderator: Forum Moderator	6	8	October 26th, 2011, 12:19 pm glox 
	Introductions New member? New to the forums? Let us get to know you! Moderator: Forum Moderator	52	580	March 20th, 2013, 11:41 am Emerald 

UGL				
Forum		Topics	Posts	Last post
	General Discussion Discussion about the club in general, and any and all Official UGL Business here. Moderator: Forum Moderator Subforums:  Official Voting,  Fitness,  Lost and Found,  General Discussion Archives,  Outside Opportunities	364	4994	April 9th, 2013, 11:30 am Patalight 
	UGL Committees Player run initiatives that drive the future endeavors of ALL UGL games. Moderator: Forum Moderator Subforums:  Expeditionary Pursuits,  Public Relations,  Safety and Medics,  Charitable Directives	57	431	April 3rd, 2013, 2:35 am Lufia 
	Off-Topic Discuss anything not inherently related to current games or urban gaming in general. Moderator: Forum Moderator Subforum:  Gaming	416	6626	April 14th, 2013, 2:10 pm Lufia 

Humans vs. Zombies				
Forum		Topics	Posts	Last post
	HvZ: General Discussion Moderators: HvZ Staff , Forum Moderator Subforum:  HvZ: General Discussion Archive	1308	15820	Yesterday, 9:34 pm Arntzen 
	HvZ: Mission Discussion Discuss missions - The good, the bad, suggestions, and other such niceties. Moderators: HvZ Staff , Forum Moderator Subforum:  HvZ: Mission Discussion Archive	118	2424	March 27th, 2013, 11:58 pm Arntzen 

Appendix D

Acknowledgments

Jacob Clark:	<i>Black Ops</i> staff member
Ashley Donnelly:	Graduate committee member
Mia Dietrich:	<i>Black Ops</i> logo designer, merchandise production, and artistic adviser
Chris Flook:	Graduate committee chair and adviser
Brad King:	Graduate committee member
Greg Loxley:	Lead website and forum designer and <i>Black Ops</i> staff member
Pietre Nordell:	<i>Black Ops</i> staff member